What is claimed is:

1. A method of controlling a robotically driven surgical instrument for a surgeon comprising the steps of:

locating a controller robot between a handle and the surgical instrument;

sensing incident tremor force components applied by a surgeon to the handle;

modulating the incident tremor force components to generate modulated tremor force commands; and

applying through the controller robot the modulated tremor force command onto the surgical instrument.

2. The method of claim 1 further comprising the step of displaying a signal representing the modulated tremor force on a display.

3. The method of claim 1 further comprising the step of controlling and adjusting the modulated tremor force via a modulation parameter provided by a surgeon.

4. The method of claim 3 wherein the modulation parameter is dependant upon historical data associated with a surgeon.

5. The method of claim 3 wherein the modulation parameter is dependant upon input provided by a surgeon during a procedure.

6. The method of claim 1 wherein at the step of applying the modulated tremor force commands, the modulated tremor force commands are applied in all degrees of freedom of the surgical instrument.

7. The method of claim 1 wherein at the step of modulating the incident tremor force compounds, the moduated tremor force commands are scaled dependent on a scaling paramenter.

8. The method of claim 1 wherein at the step of outputting through the controller robot a modulated tremor force on the surgical instrument the output is smoothed

9. The method of claim 1 wherein at the step of modulating the incident force, force components, the modulated tremor force commands, or smoothed to eliminate anomolies.

10. A method of controlling a surgical instrument connected to a surgical robot comprising the steps of:

locating a controller robot between a handle and a surgical instrument;

sensing incident reflectance force from a sensor when the surgical instrument is placed against body tissue;

modulating the reflectance force components in the controller robot; and

outputting through the controller robot a modulated reflectance force on the handle, wherein the modulation scaling step includes modulating the reflectance force in all degrees of freedom of the handle.

11. The method of claim 10 wherein the output is outputted in all degrees of freedom of the handle.

12. A method of controlling a surgical instrument comprising the steps of:

locating a controller robot between a handle and a surgical instrument;

sensing incident force components present on the handle generated by a surgeon's hand;

modulating the incident force components in the controller robot; and

outputting through the controller robot a modulated force on the surgical instrument, wherein the output step includes the further step of outputting the modulated force in all degrees of freedom of the surgical instrument.

13. The method of claim 12 comprising the further step of scaling the modulated force to a scaled output level for outputting through the controller robot.

14. A surgical robot comprising:

a controller robot located between a handle and a surgical instrument;

a sensor for sensing an incident reflectance force from the sensor when the surgical instrument is contact with body tissue;

a modulator for modulating the reflectance force components in the controller robot; and

a motor for outputting through the controller robot a modulated reflectance force on the handle.

15. A method of controlling a surgical instrument connected to a surgical robot for a surgeon comprising the steps of:

receiving from a surgeon operator input from an input device indicating desired forces and deflections of a robotically controlled surgical instrument;

transforming the input into control signals for directing the motion of and application of force by a robotically controlled surgical instrument;

applying the control signals to a robotically controlled surgical instrument;

monitoring forces applied to the robotically controlled surgical instrument by a patient's tissue in response to motion of the robotically controlled surgical instrument; and

applying resistive forces correlating to the monitored forces to the surgeon operator's input device in response to input provided by a surgeon operator;

wherein said resistive forces vary sufficiently rapidly to emulate forces resultant from tremor motions of a surgical instrument against a patient's tissue.

16. A method of controlling a surgical instrument according to claim 15, further comprising the step of scaling the operator input to reduce the magnitude of forces and deflections applied by the robotically controlled surgical instrument.

17. A method of controlling a surgical instrument according to claim 16, further comprising the step of scaling resistive forces applied to the input device to increase indicated forces to a level detectable by a surgeon operator.

18. A controller robot for performing surgical procedures, the controller robot comprising:

a robotics portion, the robotics portion comprising at least one surgical instrument unit;

an workstation portion, said workstation portion comprising a display and an input device;

a controller portion, the controller portion comprising hardware and software for transforming input provided by a surgeon operator via the interface portion into motion of the at least one surgical instrument;

wherein the robotics portion further comprises force detection sensors for determining force reflectance from tissue in contact with the at least one surgical instrument.

19. A controller robot according to claim 18, wherein said robotics portion comprises a left robotic arm and a right robotic arm, and wherein the interface portion comprises a left input device and a right input device.

20. A controller robot according to claim 19, wherein the right input device is able to control motion of the left robotic arm.

21. A controller robot according to claim 18, wherein the input device is engageable to a handle emulating the handle of a surgical instrument, and further is capable of receiving input from the handle in six degrees of freedom.

22. A controller robot according to claim 21, wherein said input device is further capable of receiving input from a seventh degree of freedom, said seventh degree of freedom associated with the opening or closing of a levered handle.

23. A controller robot according to claim 21, wherein said input device is further adapted for alternately receiving varying handles emulating handles of surgical instruments in use.

24. A controller robot according to claim 18, wherein the robotics portion further comprises at least one robotics arm, the robotics arm adapted to alternately engage varying surgical instrument units.

25. A controller robot according to claim 24, where said robotics portion further comprises a supply of varying surgical instrument units, the surgical instrument units adapted to alternately engage the robotics arm.

26. A controller robot according to claim 25, wherein the controller portion further comprises capability to direct the robotics arm to select specific surgical instrument units for engagement to the robotics arm.

27. A controller robot according to claim 26, wherein said interface portion further comprises a microphone for receiving spoken input from a surgeon operator, and wherein said controller portion selects a surgical instrument unit for engagement to the robotics arm dependant on input received via the microphone.

28. A controller robot according to claim 18, wherein the robotics portion further comprises a left robotics arm and a right robotics arm, the robotics arms adapted to alternately engage varying surgical instrument units.

29. A controller robot according to claim 28, where said robotics portion further comprises a left supply of varying surgical instrument units and a right supply of varying surgical instrument units, the surgical instrument units adapted to alternately engage the robotics arms.

30. A controller robot according to claim 29, wherein the controller portion further comprises capability to direct the robotics arms to select specific surgical instrument units for engagement to the robotics arms.

31. A controller robot according to claim 30, wherein the varying surgical instrument units are selected dependant on a procedure to be performed.

32. A controller robot according to claim 31, wherein the varying surgical instrument units making up the left supply are not identical to the varying surgical instrument units making up the right supply.

33. A controller robot according to claim 32, wherein the left supply further comprises at least one instrument magazine engageable to the robotics arm.

34. A controller robot according to claim 32, wherein the right supply further comprises at least one instrument magazine engageable to the robotics arm.

35. A controller robot according to claim 18, further comprising a table adapter, the table adapter for receiving the robotics portion and indexing the robotics portion to a known location on the table.

36. A controller robot according to claim 35, wherein the robotics portion is selectively detachable from the mobile base when the robotics portion is engaged to the table adapter.

37. A controller robot according to claim 18, wherein the workstation portion is engageable to the mobile base.

38. A controller robot according to claim 18, wherein the controller portion is engageable to the mobile base.

39. A controller robot according to claim 18, further comprising an auxiliary interface connected to the controller portion.

40. A controller robot according to claim 39, wherein the controller portions connected to a communications network.

41. A controller robot according to claim 40, further comprising a database connected to said network, said database storing parameters associated with surgeons.

42. A controller robot according to claim 40, further comprising a database connected to said network, said database storing parameters associated with tissues.

43. A controller robot according to claim 40, further comprising a database connected to said network, said database storing historical information associated with performance of a medical procedure using the controller robot.

44. A controller robot according to claim 40, further comprising continuous frameless navigation equipment connected to said network.

45. A controller robot according to claim 40, further comprising computer aided tomography equipment connected to said network.

46. A controller robot according to claim 40, further comprising magnetic resonance imaging equipment connected to said network.

47. A controller robot according to claim 18, wherein said at least one surgical instrument unit further comprises an imager, said imager viewing an area associated with a surgical instrument.

48. A controller robot according to claim 18, wherein said at least one surgical instrument comprises distance cueing capabilities.

49. A controller robot according to claim 48, wherein said distance cueing capability comprises distance measuring equipment.

50. A controller robot according to claim 48, wherein said distance cueing capability comprises a plurality of light beams, the light beams aimed to converge at a location immediately in front of a surgical instrument associated with the surgical instrument unit.

51. A controller robot according to claim 18, wherein said workstation portion signals instrument contact with tissue to a surgeon operator when forces are first detected against the at least one instrument unit by the force detection sensors.

52. A controller robot according to claim 18, wherein the controller portion is able to modulate control signals to the robotics arm dependant on a instrument lag parameter.

53. A controller robot according to claim 18, wherein the controller portion is able to modulate control signals to the robotics arm dependant on a instrument motion damping parameter.

54. A controller robot according to claim 18, wherein the controller portion is able to modulate control signals to the robotics arm dependant on a instrument speed parameter.

55. A controller robot according to claim 18, wherein the controller portion is able to modulate control signals to the robotics arm dependant on an instrument force parameter.

56. A controller robot according to claim 18, wherein the controller portion is able to receive definition of a boundary past which a surgical instrument should not travel, said controller further being able to limit motion of the robotics arm to prevent interference between the surgical instrument and the boundary.

57. A controller robot according to claim 56, wherein the controller portion predicts a future position of a surgical instrument dependant on the present motion of the robotics arm, and further signals a surgeon operator when such prediction indicates a likely interference between the surgical instrument and the boundary.